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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/695,775

10/24/2000

Charles D. Ray

Q00-1042-US1

2360

32093

7590

03/17/2006

HANSRA PATENT SERVICES
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EXAMINER

DAVIDSON, DAN

ART UNIT

PAPER NUMBER

2651

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/695,775

Applicant(s)

RAY ET AL.

Examiner

Dan I. Davidson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,6,30,32,34-36 and 40-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30,32,34-36 and 40-100 is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 15, 2005 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, and 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Krounbi et al (US 6,693,760 B1).

Re claim 1; Krounbi et al disclose a data transfer driver for a data storage device including recording media having one or more recording surfaces (see Fig. 8A), and one or more transducer heads (Fig. 8A, 22, 24) positionable relative to the recording surfaces by an actuator (col. 5, lines 48-51) operating within a head position servo loop (col. 6, lines 4-8), the data transfer driver comprising: one or more head interfaces (Fig.

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8A, 66A-B, 68A-B), each head interface electrically connected to a transducer head for controlling the transducer head for data read and/or write operations (see Fig. 8A); and a mode controller electrically connected to each head interface for controlling the operation of each head interface (Fig. 8A, 62) for selectively reading data from at least one recording surface via at least one transducer head while writing final servo patterns to at least one recording surface via at least one transducer head (col. 9, lines 52-60).

Re claims 3 and 5; Krounbi et al disclose that the mode controller controls the operation of the head interfaces based on configuration information (from Fig. 4, 455, 402, ultimately from host) wherein the configuration information includes head selection (Fig. 4, note that serial interface 431 activates read/write head selects) and data transfer mode information (Fig. 4, note that serial interface 431 activates read channel post-amp and write pre-driver).

Re claim 6; Krounbi et al disclose that each head interface comprises: a read circuit for controlling the corresponding transducer head to read data from a recording surface, and a write circuit for controlling the corresponding transducer head to write data to a recording surface (Fig. 4, 411, 421).

Allowable Subject Matter

4. Claims 30, 32, 34-36, and 40-100 are allowed over the prior art of record.

Re claim 30; the prior art of record, and in particular Krounbi et al (US 6,693,760 B1), fails to teach or suggest a mode controller for controlling the operation of each head interface based on configuration information provided by the drive controller for selectively reading data from at least one recording surface via at least one transducer

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head while writing final servo patterns to at least *another* recording surface via at least one transducer head.

Re claims 40-41, and 44-45; the prior art of record, and in particular Chew et al (US 6,567,233 B1), fails to teach or suggest a mode controller for controlling the operation of each head interface for selectively reading data from at least one recording surface while simultaneously writing data to a *plurality* of recording surfaces.

Re claims 42 and 43; the prior art of record, and in particular Chew et al (US 6,567,233 B1), fails to teach or suggest a servo write mode, wherein the mode controller controls the operation of the head interfaces for selectively writing data.

Re claim 50; the prior art of record, and in particular Chew et al (US 6,567,233 B1), fails to teach or suggest a mode controller for controlling the operation of each head interface for selectively reading data from at least one recording surface for a *distance longer than a servo sector* while writing data to at least one recording surface.

Re claim 51; the prior art of record, and in particular Chew et al (US 6,567,233 A), fails to teach or suggest reading the reference pattern from the reference disk via a transducer head and for using the read servo clock and servo position information to position and maintain one or more other transducer heads on one or more recording surfaces while writing final servo patterns onto one or more recording surfaces.

Re claim 61; the prior art of record, and in particular Chew et al (US 6,567,233 A), fails to teach or suggest a servo write mode in which each selected head writes final servo patterns to a corresponding disk surface.

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Re claim 81; the prior art of record, and in particular Chew et al (US 6,567,233 A) and Krounbi et al (US 6,693,760 B1), fails to teach or suggest a RWW mode for self-servo write such that the first head reads a reference pattern from the first disk surface to position the first and second heads while the second head writes *final servo patterns* to the *second* disk surface.

Re claim 91; the prior art of record, and in particular Chew et al (US 6,567,233 A), fails to teach or suggest a RWW mode such that the first head reads from the first disk surface for an *entire revolution* of the first disk surface while the second head writes to the second disk surface for an entire revolution of the second disk surface.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Elliott et al (US 5,477,402 A) teach using a servo multiplexer to read servo information in turn from each disk while writing to a disk.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan I. Davidson whose telephone number is (571) 272-7552. The examiner can normally be reached on Monday-Thursday from 8:30AM to 2:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington, can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DID
Dan I Davidson
March 6, 2006



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER